

ATTORNEY DOCKET NO.:  
JA9-98-122

Examiner: **ISAAC M. WOO**


Art Unit: 2172

**For: APPARATUS AND SYSTEM FOR  
DISPLAYING RECEIPT OF A PACKET**

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This Brief is submitted in triplicate in support of the Appeal of the above-identified application.

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Pia R. Lorenzana

### **REAL PARTY IN INTEREST**

The real party in interest in the present Appeal is International Business Machines Corporation, the Assignee of the present application as evidenced by the Assignment set forth at reel 010153, frame 0552.

### **RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellants, the Appellants' legal representative, or assignee, which directly affect or would be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **STATUS OF CLAIMS**

Claims 1-11 stand finally rejected as noted by in the Examiner's action dated February 23, 2004.

### **STATUS OF AMENDMENTS**

No amendments have been submitted subsequent to the final rejection.

### **SUMMARY OF THE INVENTION**

As set forth in the present specification at page 9, line 14 *et seq.*, the present invention is directed to a connection unit or expansion unit for use with a computer which is connectable to a network. The expansion unit includes a logic circuit responsive to receipt of a pre-determined packet via the network for generating a pre-determined signal and means responsive to the pre-determined signal for displaying the receipt of the pre-determined packet whereby a user or the computer is enabled to recognize the fact that execution of Wake-On LAN (WOL) has been carried out or attempted prior to running an application on the computer.

As illustrated in the present specification at Figure 6 and as is described in the present specification at page 29, line 1 *et seq.*, a computer system 600 is depicted which includes a docking station as an expansion unit combined with a computer system 600. Aside from system unit 630, the docking station comprises a power supply circuit 620 which includes an auxiliary

power supply **625** which is continually powered on and a Wake-On LAN (WOL) compatible LAN adapter **610**, a Wake-On LAN (WOL) logic circuit **640** and a Wake-On LAN (WOL) display circuit **650**.

Auxiliary power supply **625** continually feeds power to the Wake-On LAN (WOL) compatible LAN adapter **620**, Wake-On LAN (WOL) logic circuit **640**, Wake-On LAN (WOL) display circuit **650** and the like even when system unit **630** is being powered off. The Wake-On LAN (WOL) compatible LAN adapter **610** is connected to a network such as a local area network and if the Wake-On LAN (WOL) compatible LAN adapter receives a Wake-On LAN (WOL) packet sent from a server connected to the same network, it responds to the Wake-On LAN (WOL) packet for generating a Wake-On LAN (WOL) signal **660**.

Upon receipt of the Wake-On LAN (WOL) signal **660**, the Wake-On LAN (WOL) logic circuit **640** outputs a power-on indication signal **690** to power supply circuit **620**, thereby causing the power supply circuit **620** to start power feeding to the system unit **630**. Additionally, Wake-On LAN (WOL) display circuit **650** responds to receipt of the Wake-On LAN (WOL) signal **660** for displaying the fact that a Wake-On LAN (WOL) packet has been received in a manner recognizable to a user.

This display occurs as is illustrated in **Figure 7**. **Figure 7** shows a docking station **710** as an expansion unit and a notebook-type PC **720** as a computer which is connected to docking station **710**. Docking station **710** and notebook-type computer **720** are connected together via a connector **730**. As illustrated, there is shown a Wake-On LAN (WOL) display means **701**, which is a portion of the Wake-On LAN (WOL) display circuit **650** depicted within **Figure 6**. The Wake-On LAN (WOL) display means **701** may comprise a light emitting element such as a LED (Light Emitting Diode) or another element so long as it is recognizable to a user. Using a conventional LED that emits an orange or green color, a user will be able to know immediately that receipt of a Wake-On LAN (WOL) packet has occurred by noticing the LED which emits an orange or green colored light.

Thus, as described in the present specification at page 8, line 3 *et seq.*, when a Wake-On LAN (WOL) operation is executed at night, a user of the computer which has been managed will be able to recognize the next morning that maintenance or the like has been performed by the system administrator by observing a persistent display which is dedicated for providing an indication that a Wake-On LAN (WOL) operation has taken place.

## ISSUES

1.) Is the Examiner's rejection to claim 1-10 under 35 U.S.C. § 103(a) as being unpatentable over *Schmidt et al.*, U.S. Patent No. 6,101,608 in view of *Kamezawa*, European Patent 502744 A2 well founded?

2.) Is the Examiner's rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over *Kamezawa*, European Patent 502744 A2 in view of *Ichikawa*, U.S. Patent No. 4,783,654 well-founded?

## GROUPING OF THE CLAIMS

For purposes of this Appeal, claims 1-10 stand or fall together as a first group and claim 11 stands or falls as a second group.

## ARGUMENT

As described in the present specification and as set forth expressly within the claims of the present application, the current application is directed to a technique for connection of a computer to a network whereby, upon receipt of a predetermined packet from the network, the computer system is awakened and a persistent display of that fact is provided on a dedicated display so that a user may be able to recognize that execution of a so-called "Wake-On LAN (WOL)" operation has been carried out or attempted.

In rejecting claims 1-10, the Examiner relies upon *Schmidt et al.* for a teaching of a remote wake-up of a computer over a network, but notes that *Schmidt et al.* fails to show or suggest in anyway the utilization of a dedicated display to indicate receipt of the predetermined wake-up packet.

In evident recognition of this substantial shortfall within the teachings of *Schmidt et al.*, the Examiner cites *Kamezawa* for its teaching of an LCD display which the Examiner believes indicates the presence of wake-up operation by an indication signal, citing column 3, lines 20-32. That rejection is not well-founded and it should be reversed.

The Examiner has taken the position that *Kamezawa* teaches a display unit, noting LCD 11 in Figure 3, which displays when the signal indicates wake-up operation and thus, in the opinion of the Examiner, discloses displaying the receipt of a predetermined wake-up packet delivered over the network, as taught by *Schmidt et al.*

Applicant urges the Board to consider that *Kamezawa* teaches a display control apparatus designed to increase the life expectancy of an LCD display by turning that LCD display on and off so that the display is not utilized when it is not necessary. Thus, any reasonable combination of *Kamezawa* with *Schmidt et al.* necessarily results in a computer which is coupled to a local area network and which may be the recipient of a “wake-up” signal” over the local area network and which includes a display which may be placed in a hibernation state in response to a control signal generated by the local processor. Nothing within either reference provides the slightest suggestion for the utilization of a persistent display to indicate the receipt of a specified packet over a local area network, as expressly set forth within the claims of the first group of the present application and the only teaching within *Kamezawa* is, as noted above, the hibernation of the LCD display in response to a control signal, which is generated by the local processing unit which displays outputs via that LCD display.

Additionally, Applicant urges the Board to consider that the claims of the present application expressly recite that the display occurs “responsive to receipt of a predetermined wake-up packet via said network...” and that nothing within *Kamezawa* shows or suggest that generation of a sleep or wake signal for the LCD display in response to a receipt of a predetermined packet over the network. Further, the claims in the present application expressly recite that receipt of the predetermined wake-up packet is displayed “persistently” and further that the display occurs “utilizing a dedicated display, wherein said dedicated display is only utilized to indicate receipt of said predetermined wake-up packet.”

Thus, Applicant urges the Board to consider than even if one having ordinary skill in the art would find the suggestion of *Kamezawa* that a local processor controls the status of its display device as suggestive of the claims within group 1 of the present application, which are expressly directed to providing an indication of the receipt of a predetermined packet over a network, that the resultant combination fails to show or suggest the persistent display of the receipt of that packet utilizing a dedicated display, as expressly set forth within claims 1-10 of the present application.

Applicant therefore respectfully urges the Board to consider that claims 1-10 define patentable subject matter over this combination of references cited by the Examiner and reversal of the Examiner's rejection is respectfully requested.

The Examiner has also rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over *Kamezawa* as noted above, in view of *Ichikawa* U.S. Patent No. 4,783,654. That rejection is also not well-founded and it should be reversed.

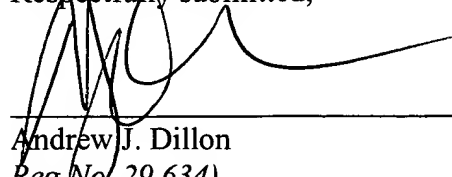
In an extension of the defective analysis noted above, the Examiner applies *Kamezawa* to claim 11 noting that the plurality of factors would constitute a "sleep-in mode and a wake-up mode." While these indeed constitute two different modes of operation, the Board is respectfully urged to consider that claim 11 expressly states that computer changes from a power-save mode or a power-off mode to a normal operation mode "due to a plurality of factors" and consequently, Applicant urges the Board to consider that a "sleep-in mode" cannot constitute one of a plurality of factors which changes the computer from a power-save mode or a power-off state to a normal operation mode as expressly set forth within claim 11. Further, Applicant urges the Board to consider that the citation by the Examiner *Ichikawa* for its teaching of a reset signal fails to address this substantial deficiency within the primary reference relied upon by the Examiner and thus, Applicant urges the Board that the Examiner's rejection of claim 11 should also be reversed.

In summary, claims 1-10 expressly set forth means for persistently displaying receipt of a predetermined wake-up packet utilizing a dedicated display wherein that dedicated display is only utilized to indicate receipt of the predetermined wake-up packet in the manner which is neither shown nor suggested by the art cited by the Examiner.

Further, claim 11 expressly recites a computer which changes from a power-save mode or a power-off mode to a normal mode of operation due to a plurality of factors and a persistent display of the generation of a signal which indicates the occurrence of a predetermined factor among that plurality of factors. None of the references cited by the Examiner show or suggest the claimed invention and consequently, Applicant urges that claims 1-11 define patentable subject matter and reversal of all rejections by the Examiner is respectfully requested.

Please charge the fee of \$330.00 due under 37 C.F.R. § 1.17(c) for filing the brief, as well as any additional required fees, to **IBM Deposit Account No. 50-0563**.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Andrew J. Dillon', is written over a horizontal line.

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## **APPENDIX**

1. A connection unit for use with a computer and connectable to a network, said connection unit comprising:

means, responsive to receipt of a predetermined wake-up packet via said network, for generating a predetermined signal; and

means, responsive to said predetermined signal, for persistently displaying the receipt of said predetermined wake-up packet utilizing a dedicated display, wherein said dedicated display is only utilized to indicate receipt of said predetermined wake-up packet.

2. The connection unit as recited in claim 1, wherein said computer is not connected to said connection unit.

3. The connection unit as recited in claim 2 further comprises means, responsive to the receipt of said predetermined wake-up packet, for displaying the non-connection of said computer.

4. The connection unit as recited in claim 1 or 2, wherein said predetermined wake-up packet includes an instruction for causing a power supply of said computer to be remotely turned on.

5. The connection unit as recited in claim 1 or 2, wherein said network is a local area network (LAN).

6. The connection unit as recited in claim 1 or 2, wherein said displaying means comprises a liquid crystal display (LCD).

7. The connection unit as recited in claim 1 or 2 further comprising means for resetting said means for persistently displaying the receipt of said predetermined wake-up packet.

8. A network system comprising:

a network; and

a terminal apparatus connectable to said network, said terminal apparatus including:

means, responsive to receipt of a predetermined wake-up packet via said network, for generating a predetermined signal; and



dedicated display means, responsive to said predetermined signal, for persistently displaying the receipt of said predetermined wake-up packet wherein said dedicated display means is only utilized to indicate receipt of said predetermined wake-up packet.

9. The network system as recited in claim 8, wherein said terminal apparatus is a portable equipment.

10. An apparatus coupled to a network via a communication adapter, said apparatus comprising:

means, responsive to receipt by said communication adapter of predetermined information via said network, for generating a predetermined signal; and

means, responsive to said predetermined signal, for persistently displaying the receipt of said predetermined information from said network.

11. A computer system having a computer that changes from a power-save mode or a power-off state to a normal operation mode due to a plurality of factors, said computer system comprising:

means for generating a signal indicating occurrence of a predetermined factor among said plurality of factors;

means, responsive to said signal indicating the occurrence of said predetermined factor, for persistently displaying the generation of said signal;

means for stopping displaying of said displaying means; and

means, responsive to a predetermined condition, for resetting said displaying means.

### **REAL PARTY IN INTEREST**

The real party in interest in the present Appeal is International Business Machines Corporation, the Assignee of the present application as evidenced by the Assignment set forth at reel 010153, frame 0552.

### **RELATED APPEALS AND INTERFERENCES**

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As illustrated in the present specification at Figure 6 and as is described in the present specification at page 29, line 1 *et seq.*, a computer system 600 is depicted which includes a docking station as an expansion unit combined with a computer system 600. Aside from system unit 630, the docking station comprises a power supply circuit 620 which includes an auxiliary

power supply **625** which is continually powered on and a Wake-On LAN (WOL) compatible LAN adapter **610**, a Wake-On LAN (WOL) logic circuit **640** and a Wake-On LAN (WOL) display circuit **650**.

Auxiliary power supply **625** continually feeds power to the Wake-On LAN (WOL) compatible LAN adapter **620**, Wake-On LAN (WOL) logic circuit **640**, Wake-On LAN (WOL) display circuit **650** and the like even when system unit **630** is being powered off. The Wake-On LAN (WOL) compatible LAN adapter **610** is connected to a network such as a local area network and if the Wake-On LAN (WOL) compatible LAN adapter receives a Wake-On LAN (WOL) packet sent from a server connected to the same network, it responds to the Wake-On LAN (WOL) packet for generating a Wake-On LAN (WOL) signal **660**.

Upon receipt of the Wake-On LAN (WOL) signal **660**, the Wake-On LAN (WOL) logic circuit **640** outputs a power-on indication signal **690** to power supply circuit **620**, thereby causing the power supply circuit **620** to start power feeding to the system unit **630**. Additionally, Wake-On LAN (WOL) display circuit **650** responds to receipt of the Wake-On LAN (WOL) signal **660** for displaying the fact that a Wake-On LAN (WOL) packet has been received in a manner recognizable to a user.

This display occurs as is illustrated in **Figure 7**. **Figure 7** shows a docking station **710** as an expansion unit and a notebook-type PC **720** as a computer which is connected to docking station **710**. Docking station **710** and notebook-type computer **720** are connected together via a connector **730**. As illustrated, there is shown a Wake-On LAN (WOL) display means **701**, which is a portion of the Wake-On LAN (WOL) display circuit **650** depicted within **Figure 6**. The Wake-On LAN (WOL) display means **701** may comprise a light emitting element such as a LED (Light Emitting Diode) or another element so long as it is recognizable to a user. Using a conventional LED that emits an orange or green color, a user will be able to know immediately that receipt of a Wake-On LAN (WOL) packet has occurred by noticing the LED which emits an orange or green colored light.

Thus, as described in the present specification at page 8, line 3 *et seq.*, when a Wake-On LAN (WOL) operation is executed at night, a user of the computer which has been managed will be able to recognize the next morning that maintenance or the like has been performed by the system administrator by observing a persistent display which is dedicated for providing an indication that a Wake-On LAN (WOL) operation has taken place.

## ISSUES

1.) Is the Examiner's rejection to claim 1-10 under 35 U.S.C. § 103(a) as being unpatentable over *Schmidt et al.*, U.S. Patent No. 6,101,608 in view of *Kamezawa*, European Patent 502744 A2 well founded?

2.) Is the Examiner's rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over *Kamezawa*, European Patent 502744 A2 in view of *Ichikawa*, U.S. Patent No. 4,783,654 well-founded?

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As described in the present specification and as set forth expressly within the claims of the present application, the current application is directed to a technique for connection of a computer to a network whereby, upon receipt of a predetermined packet from the network, the computer system is awakened and a persistent display of that fact is provided on a dedicated display so that a user may be able to recognize that execution of a so-called "Wake-On LAN (WOL)" operation has been carried out or attempted.

In rejecting claims 1-10, the Examiner relies upon *Schmidt et al.* for a teaching of a remote wake-up of a computer over a network, but notes that *Schmidt et al.* fails to show or suggest in anyway the utilization of a dedicated display to indicate receipt of the predetermined wake-up packet.

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Additionally, Applicant urges the Board to consider that the claims of the present application expressly recite that the display occurs “responsive to receipt of a predetermined wake-up packet via said network...” and that nothing within *Kamezawa* shows or suggest that generation of a sleep or wake signal for the LCD display in response to a receipt of a predetermined packet over the network. Further, the claims in the present application expressly recite that receipt of the predetermined wake-up packet is displayed “persistently” and further that the display occurs “utilizing a dedicated display, wherein said dedicated display is only utilized to indicate receipt of said predetermined wake-up packet.”

Thus, Applicant urges the Board to consider than even if one having ordinary skill in the art would find the suggestion of *Kamezawa* that a local processor controls the status of its display device as suggestive of the claims within group 1 of the present application, which are expressly directed to providing an indication of the receipt of a predetermined packet over a network, that the resultant combination fails to show or suggest the persistent display of the receipt of that packet utilizing a dedicated display, as expressly set forth within claims 1-10 of the present application.

Applicant therefore respectfully urges the Board to consider that claims 1-10 define patentable subject matter over this combination of references cited by the Examiner and reversal of the Examiner's rejection is respectfully requested.

The Examiner has also rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over *Kamezawa* as noted above, in view of *Ichikawa* U.S. Patent No. 4,783,654. That rejection is also not well-founded and it should be reversed.

In an extension of the defective analysis noted above, the Examiner applies *Kamezawa* to claim 11 noting that the plurality of factors would constitute a "sleep-in mode and a wake-up mode." While these indeed constitute two different modes of operation, the Board is respectfully urged to consider that claim 11 expressly states that computer changes from a power-save mode or a power-off mode to a normal operation mode "due to a plurality of factors" and consequently, Applicant urges the Board to consider that a "sleep-in mode" cannot constitute one of a plurality of factors which changes the computer from a power-save mode or a power-off state to a normal operation mode as expressly set forth within claim 11. Further, Applicant urges the Board to consider that the citation by the Examiner *Ichikawa* for its teaching of a reset signal fails to address this substantial deficiency within the primary reference relied upon by the Examiner and thus, Applicant urges the Board that the Examiner's rejection of claim 11 should also be reversed.

In summary, claims 1-10 expressly set forth means for persistently displaying receipt of a predetermined wake-up packet utilizing a dedicated display wherein that dedicated display is only utilized to indicate receipt of the predetermined wake-up packet in the manner which is neither shown nor suggested by the art cited by the Examiner.

Further, claim 11 expressly recites a computer which changes from a power-save mode or a power-off mode to a normal mode of operation due to a plurality of factors and a persistent display of the generation of a signal which indicates the occurrence of a predetermined factor among that plurality of factors. None of the references cited by the Examiner show or suggest the claimed invention and consequently, Applicant urges that claims 1-11 define patentable subject matter and reversal of all rejections by the Examiner is respectfully requested.

## APPENDIX

1. A connection unit for use with a computer and connectable to a network, said connection unit comprising:
  - means, responsive to receipt of a predetermined wake-up packet via said network, for generating a predetermined signal; and
  - means, responsive to said predetermined signal, for persistently displaying the receipt of said predetermined wake-up packet utilizing a dedicated display, wherein said dedicated display is only utilized to indicate receipt of said predetermined wake-up packet.
2. The connection unit as recited in claim 1, wherein said computer is not connected to said connection unit.
3. The connection unit as recited in claim 2 further comprises means, responsive to the receipt of said predetermined wake-up packet, for displaying the non-connection of said computer.
4. The connection unit as recited in claim 1 or 2, wherein said predetermined wake-up packet includes an instruction for causing a power supply of said computer to be remotely turned on.
5. The connection unit as recited in claim 1 or 2, wherein said network is a local area network (LAN).
6. The connection unit as recited in claim 1 or 2, wherein said displaying means comprises a liquid crystal display (LCD).
7. The connection unit as recited in claim 1 or 2 further comprising means for resetting said means for persistently displaying the receipt of said predetermined wake-up packet.
8. A network system comprising:
  - a network; and
  - a terminal apparatus connectable to said network, said terminal apparatus including:
    - means, responsive to receipt of a predetermined wake-up packet via said network, for generating a predetermined signal; and

dedicated display means, responsive to said predetermined signal, for persistently displaying the receipt of said predetermined wake-up packet wherein said dedicated display means is only utilized to indicate receipt of said predetermined wake-up packet.

9. The network system as recited in claim 8, wherein said terminal apparatus is a portable equipment.

10. An apparatus coupled to a network via a communication adapter, said apparatus comprising:

means, responsive to receipt by said communication adapter of predetermined information via said network, for generating a predetermined signal; and

means, responsive to said predetermined signal, for persistently displaying the receipt of said predetermined information from said network.

11. A computer system having a computer that changes from a power-save mode or a power-off state to a normal operation mode due to a plurality of factors, said computer system comprising:

means for generating a signal indicating occurrence of a predetermined factor among said plurality of factors;

means, responsive to said signal indicating the occurrence of said predetermined factor, for persistently displaying the generation of said signal;

means for stopping displaying of said displaying means; and

means, responsive to a predetermined condition, for resetting said displaying means.